

In the claims:

1. (currently amended) A rotor (1) of an electrical machine (10), having at least one permanent magnet (3), which is embodied as a hollow cylinder (5) and which has axial contact faces (20) that cooperate with corresponding axial clamping faces (22) of at least one retaining element (4), with which element the permanent magnet (3) is secured to the rotor (1), wherein characterized in that at least one of the clamping faces (22) has a knurling (46) extending in the radial direction, and wherein the retaining element (4) has a spring element (30, 32) which presses the clamping face (22) against the contact face (20) with a contact pressure.

2. (currently amended) The rotor (1) as defined by claim 1, characterized in thatwherein the knurling (46) has radial grooves (50) and axially pointed raised areas (48, 52) which extend in the radial direction.

3. (currently amended) The rotor (1) as defined by claim 1, characterized in thatwherein the retaining element (4) has a ring element (34), on whose axial side (28) - facing toward at least the contact face (20) - the clamping face (22) is integrally formed.

Claim 4 cancelled.

5. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the spring element (30) —~~in particular a cup spring~~
(32)— is braced axially and radially on the retaining element (4) and elastically
supported the permanent magnet (3).

6. (currently a mended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the radial raised areas (48, 52) engage the inside of
the contact face (20) of the permanent magnet (3), in order to transmit a torque
between the permanent magnet (3) and the retaining element (4) and/or to center
the permanent magnet (3) radially to the rotor (1).

7. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the permanent magnet (3) is manufactured of
sintered material or plastic-bonded material and ~~in particular contains ferrite~~
~~and/or rare earth elements~~— preferably NdFeB.

8. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the permanent magnet (3), at least on one of its
stop faces (20), has a coating (14) —~~in particular of epoxy resin, nickel or~~
~~aluminum~~— which is softer than the material (56) of the raised areas (48, 52).

9. (currently amended) The rotor (1) as defined by claim 1,
characterized in that the raised areas (48, 52) are manufactured of harder
material (56) than the permanent magnet (3) or the coating (14) –~~in particular of~~
~~steel or Invar~~– and has a coefficient of thermal expansion that is adapted to the
permanent magnet (3) used.

10. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the rotor (1) has a rotor shaft (2) and/or a rotor body
(8), embodied as a magnetic short circuit (7), which are surrounded by a ring
element (34) that has the clamping face (22).

11. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the retaining element (4) – and in particular its ring
element (34) – has a radial collar (36) or a radial-elastic element, on which the
permanent magnet (3) is braced for radial precentering.

12. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in thatwherein~~ the retaining element (4) is solidly fixed on the rotor
shaft (2) by means of securing rings (40), spring components, laser welding,
adhesive bonding, material deformation, or shrink-fitting.

13. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in that~~wherein the retaining element (4) is embodied as a sleeve
(26) with an axial shoulder (28) on which the contact face (20) is braced.

14. (currently amended) The rotor (1) as defined by claim 1,
wherein the axial shoulder (28) is embodied as the clamping face (22).

15. (currently amended) The rotor (1) as defined claim 1,
~~characterized in that~~wherein the permanent magnet (3), on its inside face (60),
has extensions (62) –especially, ~~extensions that taper radially~~– with which the
permanent magnet (3) is pressed against the sleeve (26) for precentering.

16. (currently amended) The rotor (1) as defined by claim 1,
~~characterized in that~~wherein the retaining element (4) is embodied as a
magnetic short circuit (7).

17. (currently amended) The rotor (1) as defined claim 1,
~~characterized in that~~wherein the spring element (30) is embodied as a speed nut
(58), which is braced directly on the sleeve (26) ~~and in particular rests directly on~~
~~one of the contact faces (20)~~.

18. (previously presented) An electrical machine (10) having a rotor (1) as defined by claim 1, characterized in that wherein the permanent magnet (3) cooperates with at least one Hall sensor (72) or one electrically commutated magnetic field revolving around the rotor (1).

19. (new) The rotor as defined by claim 5, wherein the spring element (30) is configured as a cup spring (32).

20. (new) The rotor as defined by claim 7, wherein the permanent magnet (3) contains elements selected from the group consisting of ferrite elements, rare earth elements, and both.

21. (new) The rotor as defined by claim 7, wherein the permanent magnet (3) is composed of NdFeB.

22. (new) The rotor as defined by claim 8, wherein said coating is composed of a material selected from the group consisting of epoxy resin, nickel and aluminum.

23. (new) The rotor as defined by claim 9, wherein the raised area (48, 52) are composed of a material selected from the group consisting of steel and Invar.

24. (new) The rotor as defined by claim 11, wherein the retaining element (4) has a ring element (34) having the radially collar (36) or a radial-elastic element, on which the permanent magnet (3) is braced for radially precentering.

25. (new) The rotor as defined by claim 17, wherein the spring element (30) embodied as the spring nut (58) braced directly on the sleeve (26) rests directly on one of the contact faces (20).

26. (new) The rotor as defined by claim 1, wherein the radial knurling (46) under an action of an axial clamping force digs into contact faces (20) of the magnet or its surface coating.